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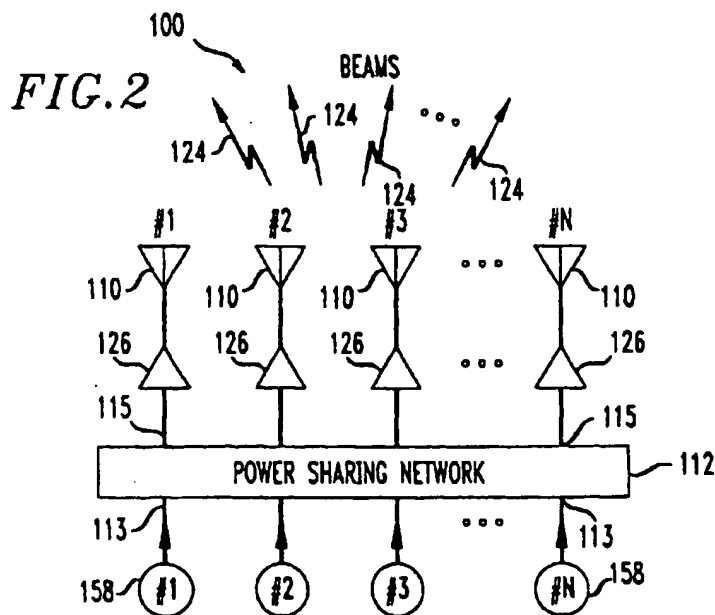
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**(54) Power shared linear amplifier network**

(57) The present invention relates to an antenna system (100) utilizing a power sharing network (112) to facilitate linear operation of power amplifiers (126) by equally distributing an electromagnetic communication signal to the plurality of power amplifiers provided in the

antenna system of the present invention. The power sharing network configuration enables linear power amplifier sharing with an input signal (158). In particular, the present invention antenna system provides a circuit arrangement providing a greater number of linear power amplifiers relative to antenna elements (110) provided.





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## EUROPEAN SEARCH REPORT

Application Number  
EP 96 30 5230

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP 0 593 822 A (NORTHERN TELECOM LTD) 27 April 1994 (1994-04-27)	1-7	H0407/30
A	* column 3, line 7 - line 26 * * column 4, line 10 - line 58 * * column 6, line 31 - line 54 * * abstract; figure 4 *	8-10	H04B7/26 H0103/40
X	US 4 246 585 A (MAILLOUX ROBERT J) 20 January 1981 (1981-01-20) * column 1, line 55 - line 65 * * column 2, line 62 - column 3, line 17 * * column 7, line 56 - line 58 * * column 8, line 43 - line 48 * * column 9, line 24 - line 28 * * claims 1-9; figures 1,2 *	1-4,8-10	
P,X	WO 95 34102 A (ERICSSON TELEFON AB L M ;FORSSEN ULF GOERAN (SE); BERG JAN ERIK (S) 14 December 1995 (1995-12-14) * page 4, line 2 - line 5 * * page 5, line 14 - page 6, line 2 * * page 7, line 3 - line 23 * * abstract; figure 3 *	1-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.8)
			H01Q
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>12 July 1999</b>	Examiner <b>Coppleters, S</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 96 30 5230

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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12-07-1999

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0593822	A	27-04-1994	AT 145496 T	15-12-1996
			DE 69215372 D	02-01-1997
			DE 69215372 T	13-03-1997
			EP 0687031 A	13-12-1995
			JP 7079475 A	20-03-1995
			US 5603089 A	11-02-1997
-----				
US 4246585	A	20-01-1981	NONE	
-----				
WO 9534102	A	14-12-1995	AU 686388 B	05-02-1998
			AU 2583595 A	04-01-1996
			CA 2191956 A	14-12-1995
			CN 1150498 A	21-05-1997
			EP 0763264 A	19-03-1997
			FI 964562 A	14-11-1996
			JP 10501661 T	10-02-1998
-----				

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